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| 10/678,725 | 10/03/2003 | Robert C. Lam | 01170/00078 | 6124 |

43215 7590 08/04/2005

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| EXAMINER |
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SPERTY, ARDEN B

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| ART UNIT | PAPER NUMBER |
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1771

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,725

Applicant(s)

LAM, ROBERT C.

Examiner

Arden B. Sperty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7 and 9-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5,7 and 9-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/01/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

NON-FINAL OFFICE ACTION

1. Applicant's comments and amendments filed 5/02/05 have been entered and carefully considered.

Information Disclosure Statement

2. The Information Disclosure Statement (IDS) submitted 6/01/05 has been entered and considered.

Claim Rejections - 35 USC § 112

3. The 35 USC 112, second paragraph, rejection of the term "suitable" is withdrawn per Applicant's amendment to delete the term.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3, 7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6630416 to Lam et al.

The applied reference has a common Assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

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either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The Lam ('416) reference teaches a friction material comprising up to about 75% fibrous material (see claim 9). The fibrous material comprises Applicant's claimed elements, in Applicant's claimed proportions (see claim 21 of the reference). Thus claims 1 and 10 are anticipated.

The fibrous base material has more than 50% available air voids, thus anticipating claim 3. The range of average pore sizes encompasses the range of Applicant's claim 7 (col. 7, lines 53-60).

A variety of resins are taught, anticipating Applicant's claim 9 (col. 6, lines 1+).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5958507 to Lam et al, in view of USPN 6130176, also to Lam. The references qualify under the dates required for a 35 USC 102(b) rejection.

The Lam ('507) reference teaches a friction material comprising up to about 75% fibrous material (col. 5, lines 3-5). The fibrous material comprises cotton, aramid, and

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filler, in Applicant's claimed proportions (col. 4, lines 52-65). The '507 reference is silent with respect to the inclusion of carbon fibers. The '176 reference teaches a similar friction material comprising the same fibrous materials with the addition of carbon fibers. The carbon fibers improve the friction material's ability to withstand high temperatures. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate carbon fibers, in the amount disclosed by the '176 reference, motivated by the desire to produce a friction material with an improved ability to withstand high temperatures. Thus claims 1 and 10 are anticipated.

The fibrous base material has more than 50% available air voids, thus anticipating claim 3. The range of average pore sizes encompasses the range of Applicant's claim 7 (col. 4, lines 41-46).

A variety of resins are taught, anticipating Applicant's claim 9 (col. 4, lines 66- col. 5, line 16).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6630416 to Lam, as applied to claim 1 above, in view of either Derwent Pub-no. RD 406020 or US 6,013,696 to Hill et al.

Claim 4 is also rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5958507 to Lam et al, in view of USPN 6130176, also to Lam, as applied to claim 1 above, in view of either Derwent Pub-no. RD 406020 or US 6,013,696 to Hill et al.

While the references teach the structure of claim 1, as stated above, the reference is silent with respect to whether the fibrous base material is woven or non-

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woven. Although the references are silent, both woven and non-woven friction materials are standard in the art. Therefore, it is presumed that the detail was omitted with the understanding that it would be implicit to one of ordinary skill in the art that both woven and non-woven materials are included. Both the Derwent reference (Abstract) and the Hill reference (col. 1, lines 21-24; col. 3-4, lines 65-9) teach non-woven friction materials of similar composition and use. Forming the friction material of the references as a non-woven would have been obvious to one ordinary skill in the art because doing so is conventional.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6630416 to Lam as applied to claim 1 above in view of either US 4,997,067 to Watts or US 5,495,922 to Booher.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5958507 to Lam et al, in view of USPN 6130176, also to Lam, as applied to claim 1 above, in view of either US 4,997,067 to Watts or US 5,495,922 to Booher.

While the references teach the structure of claim 1, as stated above, the references are silent with respect to whether the fibrous base material is woven or non-woven. Although the reference is silent, both woven and non-woven friction materials are standard in the art. Therefore, it is presumed that the detail was omitted with the understanding that it would be implicit to one of ordinary skill in the art that both woven and non-woven materials are included. Both the Watts reference (col. 1, lines 9-12; col. 2, lines 21-24, 43-55) and the Booher reference (col. 3, lines 12-22; col. 4, lines 22-25)

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teach woven friction materials of similar composition and use. Forming the friction material of the references as a woven material would have been obvious to one ordinary skill in the art because doing so is conventional.

Double Patenting

10. Claims 1 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9 and 21 of U.S. Patent No. 6630416. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed inventions overlap in scope and detail.

11. Claims 1, 3, 7, 9 and 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10, 11, 12, 14 and 15 of copending Application No. 10/678720. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed inventions clearly overlap.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

12. Applicant's arguments, filed 5/02/05, regarding the 35 USC 102(b) rejection of claims 1-3 and 6-9 presented in the Non-Final Office Action of 2/08/05 have been fully

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considered and are persuasive. Therefore, the rejections have been withdrawn.

However, upon further consideration, new grounds of rejection are made as stated above. The examiner concedes that the cited prior art teaches a lower fibrous content (i.e. a higher resin content) than currently claimed.

13. The examiner anticipates that Applicant will traverse the 35 USC 103(a) rejections of claims 4 and 5 stated above, since the rejections are similar to the rejections made in the previous office action. Applicant's current traversal is on the basis that the examiner has reached an inappropriate conclusion for one of ordinary skill in the art. Applicant is of the position that one of ordinary skill in the art would not conclude that the fibrous material was woven or non-woven. Since "woven" and "nonwoven" encompass all fibrous forms, it is not clear what other form Applicant would expect one in the art to conclude; Applicant's argument does not even have a logical basis. The examiner's position remains steadfast, even if Applicant can produce evidence showing that there is a fibrous form that is neither "woven" nor "nonwoven." To overcome the rejection, Applicant would need to somehow show that neither "woven" nor "nonwoven" forms would have been at all obvious to one of ordinary skill in the art in view of the prior art cited above.

Allowable Subject Matter

14. The following is a statement of reasons for the indication of allowable subject matter: Claims 2, and 11-13 require a fibrous content of at least 80%, and consequently a resin content of no more than 20%. The prior art is not seen to teach or fairly suggest

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a friction material of the claimed composition having the high fibrous content (at least 80%) claimed by Applicant.

Conclusion

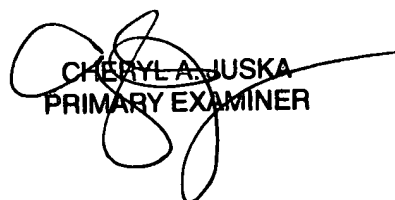
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arden B. Sperty
Examiner
Art Unit 1771

July 20, 2005


CHERYL A. JUSKA
PRIMARY EXAMINER